Inorganic Data Review Narrative

Case# 40200	**Site: Riverside Ave.**	**Soil: 0**
SDG# MB0008	**Lab: Bonner Analytical Testing**	**Water: 0**
Sampling Team: USEPA	**Reviewer: J. Filan**	**Other: 12**

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

J - This flag indicates the result qualified as estimated

R and Red-Line - A red-line drawn through a sample result indicates unusable value. The red-lined data are known to contain significant errors based on documented information and must not be used by the data user.

U - This data validation qualifier is applied to sample results ≥ MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

***: This qualifier indicates the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.**

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyte suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

A.2.3.1 Data Case Description:

This case consists of twelve (12) waste samples collected at Riverside Ave. between 6/08/10 and 6/09/10 for TAL Metals, Mercury, and Cyanide analysis according to the USEPA CLP SOW No. ILM05.4. Matrix Spike and Laboratory Duplicate analyses were performed on samples MB0042 and MB0005. Serial Dilution analysis was performed on sample MB0042.

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the data validator, where applicable: Preservation, Holding Time, CRQL Standard, Matrix Spike (soil matrix), Interference Check Sample, Laboratory Duplicate, Field Duplicate, ICP Serial Dilution, and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets are based on ESAT data review of the above mentioned criteria. For all other criteria see the CADRE Reports.

A.2.3.2 CSF Audit: No problems.

A.2.3.3 Technical Review:

SDG MB0008 (12 waste for TAL metals, Hg, and CN: ICP-AES)

ICB/CCB

The Calibration Blank values were ≥MDL but ≤CRQL for CN. The following associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> CN -> MB0041

PREPARATION BLANK

The Preparation Blank values were ≥MDL but ≤CRQL for Zn and CN. The associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> Zn -> MB0002, MB0008, MB0009, MB0014
"U" -> CN -> MB0002, MB0006, MB0008, MB0013, MB0014, MB0034, MB0041*

INTERFERENCE CHECK SAMPLE

The ICP ICSAB recovery was outside the control limits of 80%-120%; between 50%-79% for Tl. All associated results for Tl have been considered estimated and flagged "J".

"J" -> Tl* -> MB0005, MB0006, MB0013

MATRIX SPIKE

The matrix spike recovery was outside the control limits of 75 - 125%; between 10%-74% for Pb (%R – 42), Zn (%R = 67), CN (%R = 29), and Hg (%R = 65); less than 10% for Tl (%R = 0) when sample concentration was ≤ 4 X Spike Amount Added. The following detected and non-detected Pb, Hg, Zn, and CN results were considered estimated and qualified "J". The following detected and non-detected Tl results have been rejected and qualified "R". Only samples whose percent solids are within ± 10% of the percent solids of the sample used for matrix spike analysis were affected.

"J" -> Pb -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044
"J" -> Zn -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044
"J" -> Hg -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044
"J" -> CN -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044

"R" -> Tl -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044

LABORATORY DUPLICATE

The RPD between sample and duplicate results was ≥35% but less than 120% for Fe when both sample and duplicate results were >5 X CRQL. All associated sample results ≥CRQL have been considered estimated and flagged "J". Only samples whose percent solids are within ± 10% of the percent solids of the sample used for laboratory duplicate analysis were affected.

"J" -> Fe -> MB0002, MB0005, MB0006, MB0008, MB0013, MB0034, MB0035, MB0041, MB0042, MB0044

The absolute difference between sample and duplicate results was >2 X CRQL for Zn when sample and/or duplicate results were <5 X CRQL. All associated sample detected and non-detected results ≥MDL but <5XCRQL have been considered estimated and flagged "J". Only samples whose percent solids are within ± 10% of the percent solids of the sample used for laboratory duplicate analysis were affected.

"J" -> Zn*-> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044

ICP SERIAL DILUTION

The ICP serial dilution analysis yielded percent differences >10 but <100 when the initial concentration was ≥50X MDL for Fe, Na, and Zn. All associated detects have been considered estimated and flagged "J".

"J" -> Fe -> MB0002*, MB0005*, MB0006*, MB0008*, MB0009, MB0013*, MB0014, MB0034*, MB0035*, MB0041*, MB0042*, MB0044*
"J" -> Na -> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044
"J" -> Zn*-> MB0002, MB0005, MB0006, MB0008, MB0009, MB0013, MB0014, MB0034, MB0035, MB0041, MB0042, MB0044

* already qualified

A.2.3.4 Contract-Problem/Non-Compliance: None.

HWSS Reviewer: _____ Date: _____
Signature

Contractor Reviewer: _____ Date: _____
Signature

Verified by: _____ Date: _____
Signature

METALS

Sample No: LCSS01 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/25/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	94.1		YES
ANTIMONY	72.3		YES
ARSENIC	280		YES
BARIUM	1.4		YES
BERYLLIUM	5		YES
CADMIUM	11.5		YES
CALCIUM	42400		YES
CHROMIUM	25.5		YES
COBALT	37.7		YES
COPPER	1710		YES
IRON	5860		YES
LEAD	57.4		YES
MAGNESIUM	25400		YES
MANGANESE	62		YES
MERCURY	2.4		YES
NICKEL	16.4		YES
POTASSIUM	16.1		YES
SELENIUM	11.3		YES
SILVER	5.8		YES
SODIUM	15.1		YES
THALLIUM	8.1		YES
VANADIUM	17.8		YES
CYANIDE	9		YES
ZINC	46.4		YES

METALS

Sample No: MB0002 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	1080		YES
ANTIMONY	6	U	YES
ARSENIC	6.8		YES
BARIUM	55.4		YES
BERYLLIUM	1.6		YES
CADMIUM	0.069	J	YES
CALCIUM	1460		YES
CHROMIUM	11.4		YES
COBALT	5.7		YES
COPPER	22.4		YES
IRON	3850	J	YES
LEAD	1	UJ	YES
MAGNESIUM	210	J	YES
MANGANESE	51.3		YES
MERCURY	0.1	UJ	YES
NICKEL	26.3		YES
POTASSIUM	91.1	J	YES
SELENIUM	1.6	J	YES
SILVER	1	U	YES
SODIUM	143	J	YES
THALLIUM	2.5	R	YES
VANADIUM	12.4		YES
ZINC	6	UJ	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0005 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	444		YES
ANTIMONY	1.8	J	YES
ARSENIC	7.2		YES
BARIUM	86.1		YES
BERYLLIUM	0.5	U	YES
CADMIUM	3.7		YES
CALCIUM	33400		YES
CHROMIUM	345		YES
COBALT	11.7		YES
COPPER	446		YES
IRON	102000	J	YES
LEAD	143	J	YES
MAGNESIUM	2580		YES
MANGANESE	416		YES
MERCURY	1.7	J	YES
NICKEL	152		YES
POTASSIUM	633		YES
SELENIUM	3.5	U	YES
SILVER	7.4		YES
SODIUM	2760	J	YES
THALLIUM	2.5	R	YES
VANADIUM	3.9	J	YES
ZINC	530	J	YES
CYANIDE	3.6	J	YES

METALS

Sample No: MB0005D	**SDG No: MB0008**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
MERCURY	1.6		YES
CYANIDE	4.6		YES

METALS

Sample No: MB0005S	**SDG No: MB0008**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
MERCURY	2.5		YES
CYANIDE	8.9		YES

METALS

Sample No: MB0006 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	670		YES
ANTIMONY	0.57	J	YES
ARSENIC	2.9		YES
BARIUM	40.6		YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.98		YES
CALCIUM	5400		YES
CHROMIUM	19.9		YES
COBALT	2.1	J	YES
COPPER	9310		YES
IRON	16000	J	YES
LEAD	30.6	J	YES
MAGNESIUM	3680		YES
MANGANESE	134		YES
MERCURY	8.9	J	YES
NICKEL	38.6		YES
POTASSIUM	9130		YES
SELENIUM	2.8	J	YES
SILVER	1.7		YES
SODIUM	3040	J	YES
THALLIUM	2.5	R	YES
VANADIUM	2	J	YES
ZINC	188	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0008	**SDG No: MB0008**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	15.8	J	YES
ANTIMONY	6	U	YES
ARSENIC	1	U	YES
BARIUM	5.5	J	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.5	U	YES
CALCIUM	287	J	YES
CHROMIUM	0.11	J	YES
COBALT	0.06	J	YES
COPPER	9.1		YES
IRON	37.2	J	YES
LEAD	1	UJ	YES
MAGNESIUM	164	J	YES
MANGANESE	3.8		YES
MERCURY	0.052	J	YES
NICKEL	0.49	J	YES
POTASSIUM	5510		YES
SELENIUM	3.5	U	YES
SILVER	1	U	YES
SODIUM	428	J	YES
THALLIUM	2.5	R	YES
VANADIUM	5	U	YES
ZINC	6	UJ	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0009 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	20	U	YES
ANTIMONY	6	U	YES
ARSENIC	1	U	YES
BARIUM	20	U	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.5	U	YES
CALCIUM	8.6	J	YES
CHROMIUM	0.08	J	YES
COBALT	5	U	YES
COPPER	2.5	U	YES
IRON	3.9	J	YES
LEAD	1	UJ	YES
MAGNESIUM	500	U	YES
MANGANESE	1.5	U	YES
MERCURY	120	J	YES
NICKEL	4	U	YES
POTASSIUM	500	U	YES
SELENIUM	3.5	U	YES
SILVER	1	U	YES
SODIUM	5.5	J	YES
THALLIUM	2.5	R	YES
VANADIUM	5	U	YES
ZINC	6	UJ	YES
CYANIDE	4.7	J	YES

METALS

Sample No: MB0013 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	4330		YES
ANTIMONY	6	U	YES
ARSENIC	4.3		YES
BARIUM	95.5		YES
BERYLLIUM	0.5	U	YES
CADMIUM	1.4		YES
CALCIUM	5000		YES
CHROMIUM	22.2		YES
COBALT	8.1		YES
COPPER	53		YES
IRON	31700	J	YES
LEAD	171	J	YES
MAGNESIUM	3260		YES
MANGANESE	156		YES
MERCURY	0.34	J	YES
NICKEL	20.9		YES
POTASSIUM	285	J	YES
SELENIUM	2.5	J	YES
SILVER	3.2		YES
SODIUM	296	J	YES
THALLIUM	2.5	R	YES
VANADIUM	18		YES
ZINC	157	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0014 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	20	U	YES
ANTIMONY	6	U	YES
ARSENIC	1	U	YES
BARIUM	20	U	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.5	U	YES
CALCIUM	8.1	J	YES
CHROMIUM	0.092	J	YES
COBALT	5	U	YES
COPPER	2.5	U	YES
IRON	7.3	J	YES
LEAD	1	UJ	YES
MAGNESIUM	500	U	YES
MANGANESE	1.5	U	YES
MERCURY	0.42	J	YES
NICKEL	4	U	YES
POTASSIUM	500	U	YES
SELENIUM	3.5	U	YES
SILVER	1	U	YES
SODIUM	5.4	J	YES
THALLIUM	2.5	R	YES
VANADIUM	5	U	YES
CYANIDE	2.5	UJ	YES
ZINC	6	UJ	YES

METALS

Sample No: MB0034 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	8760		YES
ANTIMONY	6	U	YES
ARSENIC	4.8		YES
BARIUM	259		YES
BERYLLIUM	0.51		YES
CADMIUM	0.84		YES
CALCIUM	59400		YES
CHROMIUM	14.4		YES
COBALT	6.8		YES
COPPER	23.1		YES
IRON	6870	J	YES
LEAD	18.1	J	YES
MAGNESIUM	4990		YES
MANGANESE	812		YES
MERCURY	0.11	J	YES
NICKEL	27.1		YES
POTASSIUM	4970		YES
SELENIUM	1.4	J	YES
SILVER	0.79	J	YES
SODIUM	12900	J	YES
THALLIUM	2.5	R	YES
VANADIUM	86.3		YES
ZINC	156	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0035 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	6190		YES
ANTIMONY	6	U	YES
ARSENIC	1.1		YES
BARIUM	149		YES
BERYLLIUM	1.2		YES
CADMIUM	0.25	J	YES
CALCIUM	8200		YES
CHROMIUM	16.8		YES
COBALT	10.2		YES
COPPER	5		YES
IRON	5620	J	YES
LEAD	8.7	J	YES
MAGNESIUM	4630		YES
MANGANESE	65.1		YES
MERCURY	0.1	UJ	YES
NICKEL	9.7		YES
POTASSIUM	987		YES
SELENIUM	0.89	J	YES
SILVER	1	U	YES
SODIUM	216	J	YES
THALLIUM	2.5	R	YES
VANADIUM	20.9		YES
ZINC	121	J	YES
CYANIDE	3.6	J	YES

METALS

Sample No: MB0041 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	527		YES
ANTIMONY	6	U	YES
ARSENIC	5		YES
BARIUM	142		YES
BERYLLIUM	0.04	J	YES
CADMIUM	0.38	J	YES
CALCIUM	796		YES
CHROMIUM	2.5		YES
COBALT	2.7	J	YES
COPPER	66.4		YES
IRON	1440	J	YES
LEAD	357	J	YES
MAGNESIUM	84.9	J	YES
MANGANESE	102		YES
MERCURY	0.062	J	YES
NICKEL	2.7	J	YES
POTASSIUM	49.2	J	YES
SELENIUM	0.89	J	YES
SILVER	1	U	YES
SODIUM	60.1	J	YES
THALLIUM	2.5	R	YES
VANADIUM	1.6	J	YES
ZINC	179	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0042 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	14.6	J	YES
ANTIMONY	6	U	YES
ARSENIC	1	U	YES
BARIUM	2	J	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.073	J	YES
CALCIUM	124	J	YES
CHROMIUM	1.2		YES
COBALT	0.23	J	YES
COPPER	1.4	J	YES
IRON	1090	J	YES
LEAD	3.4	J	YES
MAGNESIUM	10	J	YES
MANGANESE	4.7		YES
MERCURY	0.1	UJ	YES
NICKEL	1.9	J	YES
POTASSIUM	42.9	J	YES
SELENIUM	3.5	U	YES
SILVER	1	U	YES
SODIUM	336	J	YES
THALLIUM	2.5	R	YES
VANADIUM	5	U	YES
ZINC	23.2	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: MB0042A	**SDG No: MB0008**	Case No: 40200
pH:	Matrix: SOIL	Units: UG/L
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
LEAD	104		YES
THALLIUM	40.3		YES
ZINC	665		YES
CYANIDE	60.2		YES

METALS

Sample No: MB0042D | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	20.1		YES
ANTIMONY	6	U	YES
ARSENIC	1	U	YES
BARIUM	2.7	J	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.08	J	YES
CALCIUM	63.3	J	YES
CHROMIUM	0.95	J	YES
COBALT	0.18	J	YES
COPPER	1.2	J	YES
IRON	679		YES
LEAD	3.3		YES
MAGNESIUM	13.7	J	YES
MANGANESE	2.7		YES
MERCURY	0.1	U	YES
NICKEL	1.9	J	YES
POTASSIUM	39.9	J	YES
SELENIUM	3.5	U	YES
SILVER	1	U	YES
SODIUM	407	J	YES
THALLIUM	2.5	U	YES
VANADIUM	5	U	YES
ZINC	8		YES
CYANIDE	0.33	J	YES

METALS

Sample No: MB0042S	**SDG No: MB0008**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	392		YES
ANTIMONY	16.1		YES
ARSENIC	7		YES
BARIUM	403		YES
BERYLLIUM	8.5		YES
CADMIUM	8.4		YES
CHROMIUM	35.4		YES
COBALT	89.7		YES
COPPER	46.9		YES
IRON	1000		YES
LEAD	5.1		YES
MANGANESE	88.2		YES
MERCURY	0.33		YES
NICKEL	93.4		YES
SELENIUM	8.2		YES
SILVER	8.3		YES
THALLIUM	2.5	U	YES
VANADIUM	86.1		YES
ZINC	90.4		YES
CYANIDE	1.5	J	YES

METALS

Sample No: MB0044 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	41.6		YES
ANTIMONY	6	U	YES
ARSENIC	0.54	J	YES
BARIUM	7.8	J	YES
BERYLLIUM	0.5	U	YES
CADMIUM	0.42	J	YES
CALCIUM	224	J	YES
CHROMIUM	1.7		YES
COBALT	304		YES
COPPER	3.3		YES
IRON	2910	J	YES
LEAD	1110	J	YES
MAGNESIUM	38.2	J	YES
MANGANESE	44.7		YES
MERCURY	0.1	UJ	YES
NICKEL	2.2	J	YES
POTASSIUM	36.5	J	YES
SELENIUM	0.64	J	YES
SILVER	1	U	YES
SODIUM	169	J	YES
THALLIUM	2.5	R	YES
VANADIUM	0.62	J	YES
ZINC	79.6	J	YES
CYANIDE	2.5	UJ	YES

METALS

Sample No: PBS01 | **SDG No: MB0008** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/25/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	20		YES
ANTIMONY	6		YES
ARSENIC	1		YES
BARIUM	20		YES
BERYLLIUM	0.5		YES
CADMIUM	0.5		YES
CALCIUM	500		YES
CHROMIUM	1		YES
COBALT	5		YES
COPPER	2.5		YES
IRON	10		YES
LEAD	1		YES
MAGNESIUM	500		YES
MANGANESE	1.5		YES
MERCURY	0.1		YES
NICKEL	4		YES
POTASSIUM	500		YES
SELENIUM	3.5		YES
SILVER	1		YES
SODIUM	500		YES
THALLIUM	2.5		YES
VANADIUM	5		YES
ZINC	0.051		YES
CYANIDE	0.25		YES